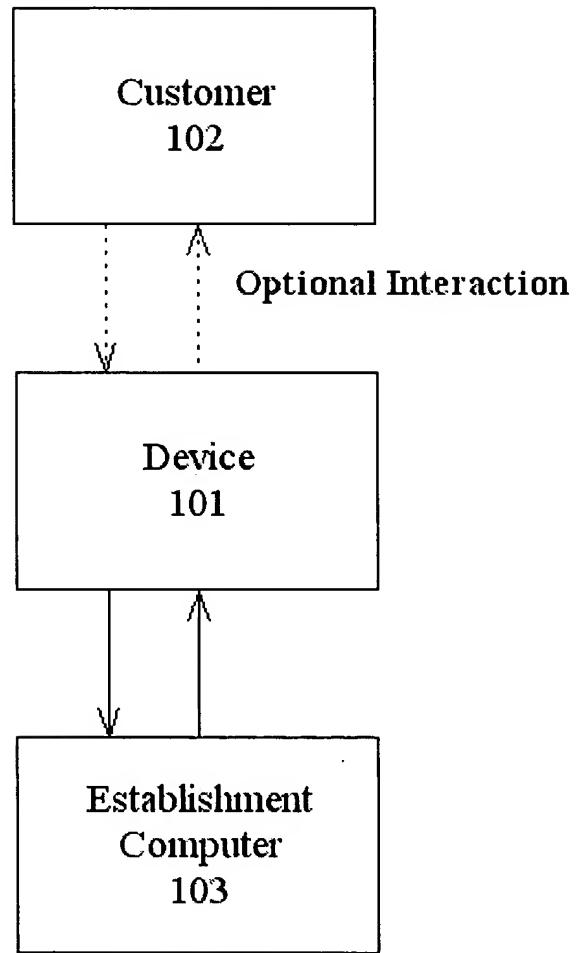
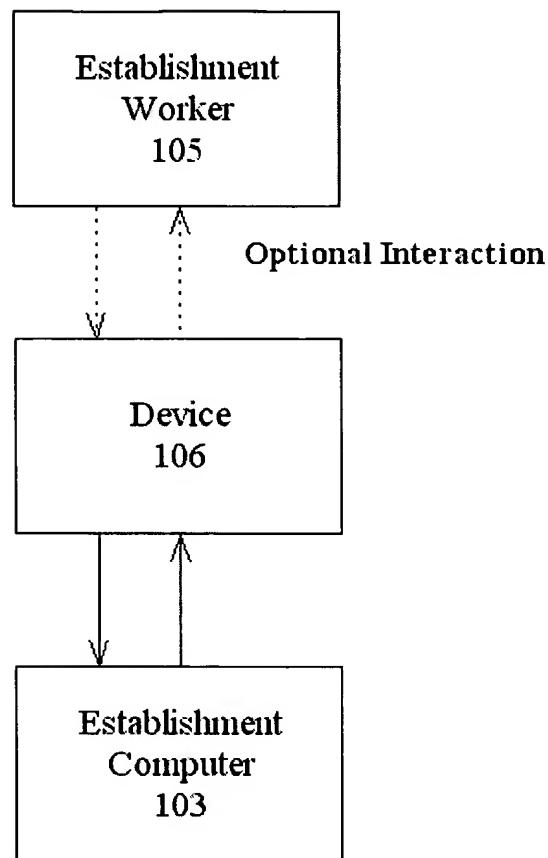


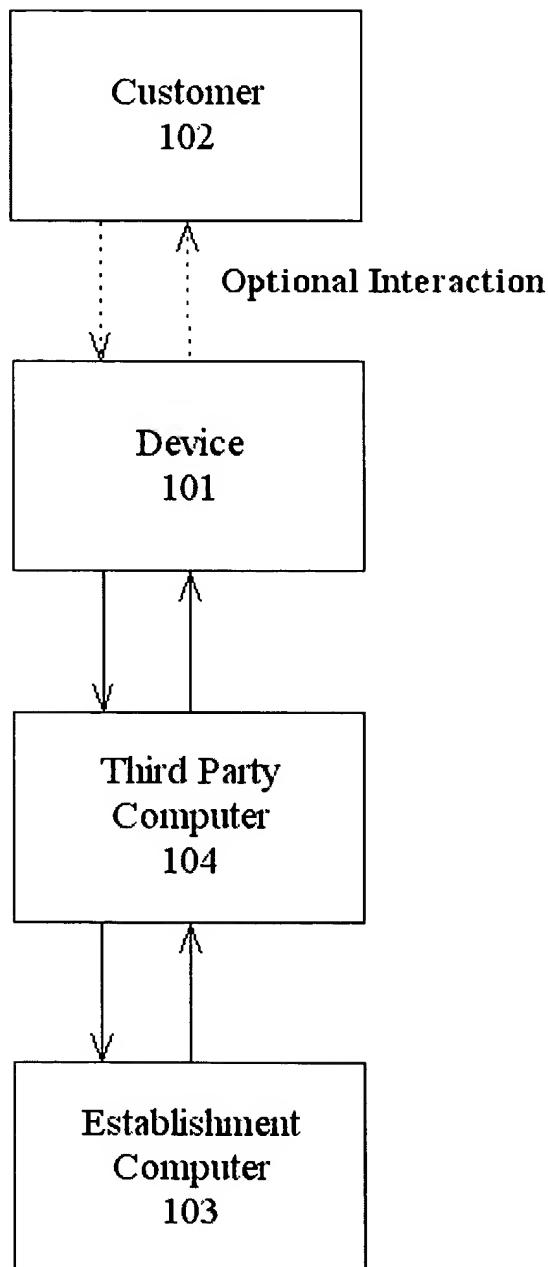
**Fig. 1a**



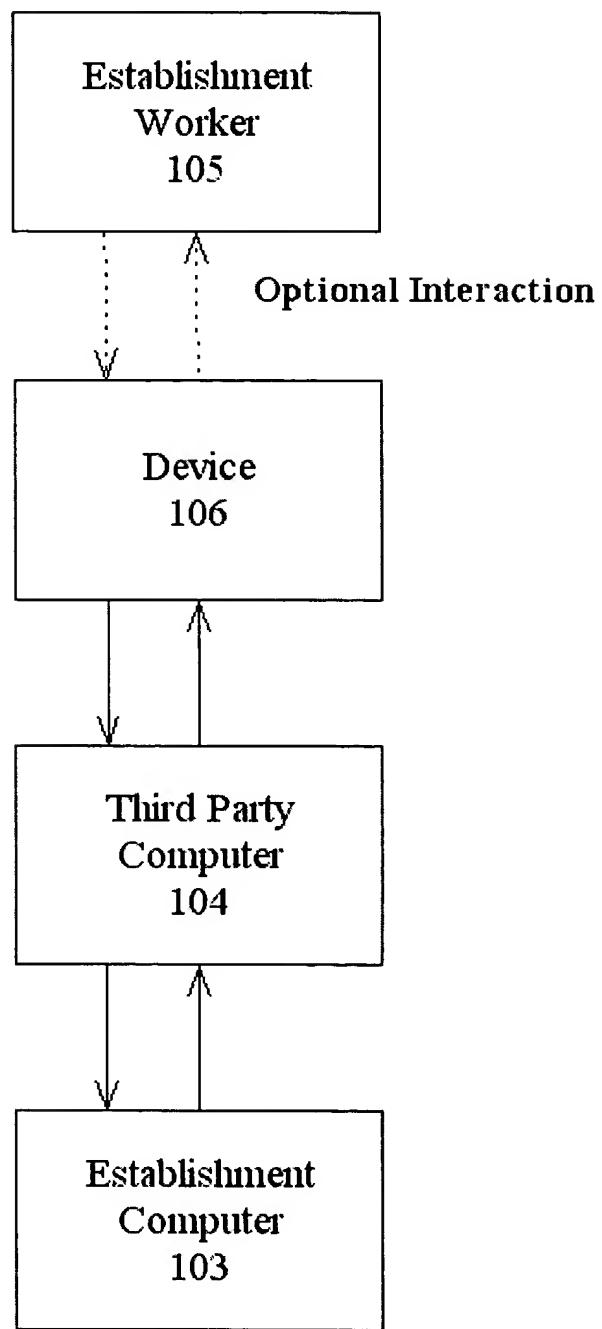
**Fig. 1b**



**Fig. 2a**

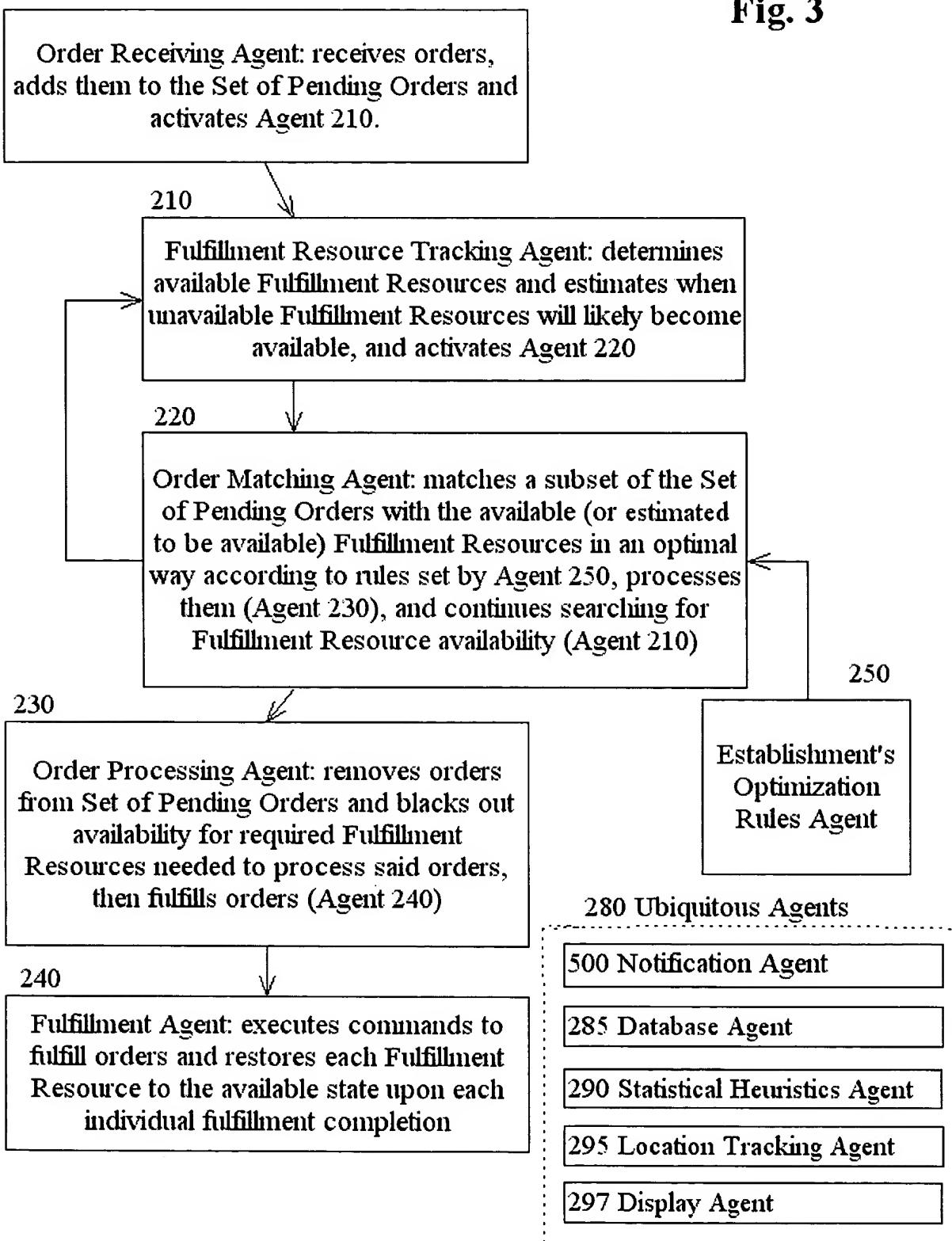


**Fig. 2b**



200

Fig. 3



201

Order Receiving Agent: receives orders, adds them to the Set of Pending Orders and activates Agent 202.

202

Trigger Determination Agent: determines whether a trigger event must occur before an order can proceed. If Yes, the order must wait by activating Agent 203 and the Trigger Condition must be created by activating Agent 205. If No, the order is added directly to the Set of Pending Orders and activates Agent 210

No

203

↓ Yes

Order Holding Area Agent: holds an order until its trigger fires, then adds it to the Set of Pending Orders and activates Agent 210.

210

Fulfillment Resource Tracking Agent: determines available Fulfillment Resources and estimates when unavailable Fulfillment Resources will likely become available, and activates Agent 220

220

Order Matching Agent: matches a subset of the Set of Pending Orders with the available (or estimated to be available) Fulfillment Resources in an optimal way according to rules set by Agent 250, processes them (Agent 230), and continues searching for Fulfillment Resource availability (Agent 210)

230

Order Processing Agent: removes orders from Set of Pending Orders and blacks out availability for required Fulfillment Resources needed to process said orders, then fulfills orders (Agent 240)

240

Fulfillment Agent: executes commands to fulfill orders and restores each Fulfillment Resource to the available state upon each individual fulfillment completion

Fig. 4a

205

Trigger System Agent

250

Establishment's Optimization Rules Agent

280 Ubiquitous Agents

500 Notification Agent

285 Database Agent

290 Statistical Heuristics Agent

295 Location Tracking Agent

297 Display Agent

201

Order Receiving Agent: receives orders, adds them to the Set of Pending Orders and activates Agent 202.

202

Trigger Determination Agent: determines whether a trigger event must occur before an order can proceed. If Yes, the order must wait by activating Agent 203 and the Trigger Condition must be created by activating Agent 205. If No, the order is added directly to the Set of Pending Orders and activates Agent 210

No

203

Order Holding Area Agent: holds an order until its trigger fires, then adds it to the Set of Pending Orders and activates Agent 210.

210

Fulfillment Resource Tracking Agent: determines available Fulfillment Resources and estimates when unavailable Fulfillment Resources will likely become available, and activates Agent 220

220

Order Matching Agent: matches a subset of the Set of Pending Orders with the available (or estimated to be available) Fulfillment Resources in an optimal way according to rules set by Agent 250, processes them (Agent 230), and continues searching for Fulfillment Resource availability (Agent 210)

230

Order Processing Agent: removes orders from Set of Pending Orders and blacks out availability for required Fulfillment Resources needed to process said orders, then fulfills orders (Agent 240)

240

Fulfillment Agent: executes commands to fulfill orders and restores each Fulfillment Resource to the available state upon each individual fulfillment completion

Fig. 4b

205

Trigger System Agent

206

Game System Agent

250

Establishment's Optimization Rules Agent

280 Ubiquitous Agents

500 Notification Agent

285 Database Agent

290 Statistical Heuristics Agent

295 Location Tracking Agent

297 Display Agent

Fig. 5

200

Order Receiving Agent: receives orders, adds them to the Set of Pending Orders and activates Agent 210.

250

Establishment's Optimization Rules Agent

210

Fulfillment Resource Tracking Agent: determines available Fulfillment Resources and estimates when unavailable Fulfillment Resources will likely become available, and activates Agent 220

220

Order Matching Agent: matches a subset of the Set of Pending Orders with the available (or estimated to be available) Fulfillment Resources in an optimal way according to rules set by Agent 250, processes them (Agent 230), and continues searching for Fulfillment Resource availability (Agent 210)

230

Order Processing Agent: removes orders from Set of Pending Orders and blacks out availability for required Fulfillment Resources needed to process said orders, then fulfills orders (Agent 240)

240

Fulfillment Agent: executes commands to fulfill orders and restores each Fulfillment Resource to the available state upon each individual fulfillment completion

260

Order Completion Self-Evaluation Agent: determines the success of Agent 200 through Agent 240, including all aspects of order fulfillment, then takes steps defined by management

280 Ubiquitous Agents

500 Notification Agent

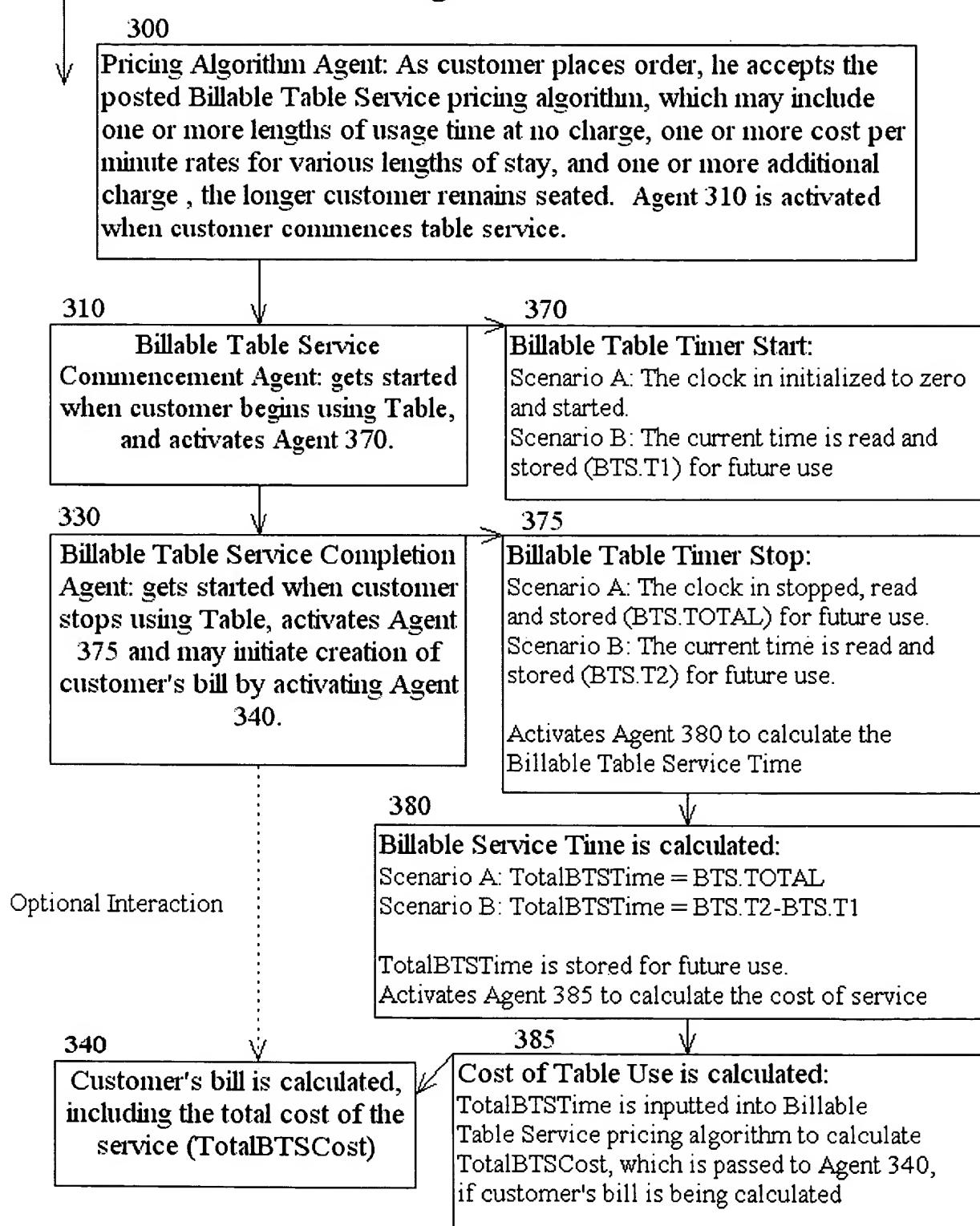
285 Database Agent

290 Statistical Heuristics Agent

295 Location Tracking Agent

297 Display Agent

time

**Fig. 6**

400

Order Receiving Agent: receives orders and preparation methods for orders, as appropriate, then activates Agent 410.

410

Order Component Display Agent: each item in the order, with its corresponding preparation method, is displayed to the customer using the same color and typeface. The set of other possible methods are listed next to the chosen preparation method (e.g. in []).

Item	Preparation	Status
Coffee	Cream, Sugar [Milk, Equal, Black]	Waiting
Garden Salad	Blue Cheese [T, FR, CI]	Waiting
Sirloin Strip	Medium Well [R, MR, M, W]	Waiting
Tea	With Lemon [Milk]	Waiting
Rice Pudding	No preparation needed	Waiting

*italics - fixed*

420

Order Component Status Change Agent: Once the processing of an Item has been committed, its change in status is displayed to the customer via the use of a different color or typeface, so as to make the customer aware that the item is, "fixed", and can no longer be canceled.

Item	Preparation	Status
Coffee	Cream, Sugar [Milk, Equal, Black]	Waiting
Garden Salad	Blue Cheese []	Waiting
Sirloin Strip	Medium Well [R, MR, M, W]	In process
Tea	With Lemon [Milk]	Waiting
Rice Pudding	No preparation needed	Waiting

*italics - fixed*

430

Order Component Preparation Method Change Agent: displays just the possible set of valid preparation methods to the customer, once the processing of an Item has progressed so as to preclude other possible preparation methods. When there are no available preparation options, Preparation for said Item becomes, "fixed".

Item	Preparation	Status
Coffee	Cream, Sugar []	Served
Garden Salad	Blue Cheese []	Completed
Sirloin Strip	Medium Well [M, W]	In process
Tea	With Lemon [Milk]	Waiting
Rice Pudding	No preparation needed	Waiting

*italics - fixed*

440

Order Component Completion Agent: Status becomes, "fixed", once it is served, and has no other options. All aspects of all the items are displayed as, "fixed", once the processing of the order is complete.

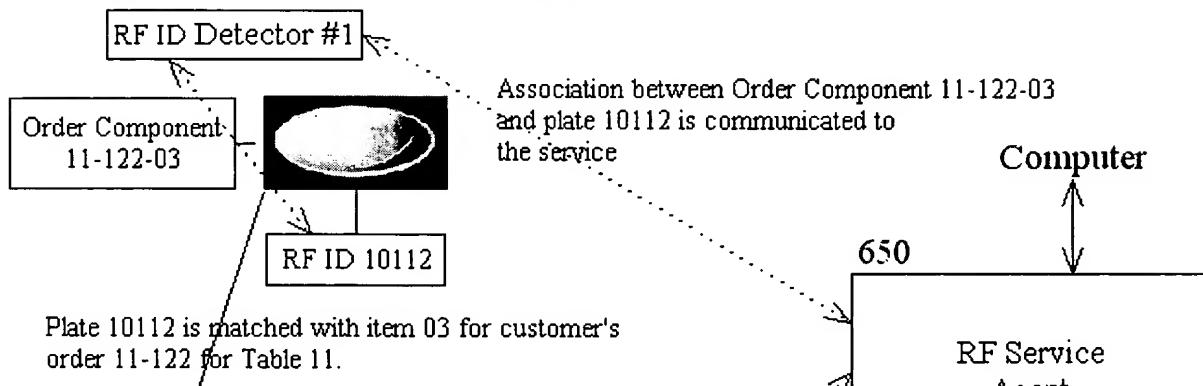
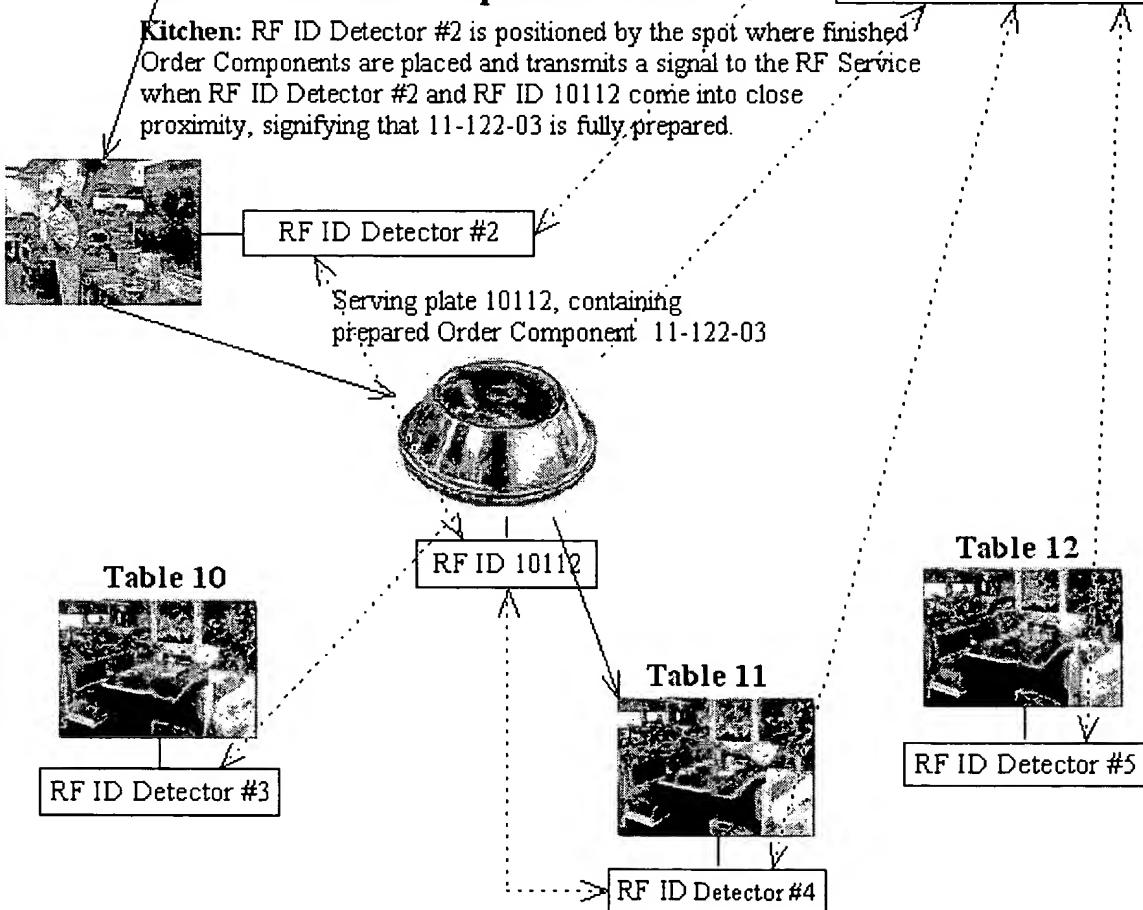
Item	Preparation	Status
Coffee	Cream, Sugar []	Served
Garden Salad	Blue Cheese []	Served
Sirloin Strip	Medium Well []	Served
Tea	With Lemon []	Served
Rice Pudding	No preparation needed	Served

*italics - fixed*

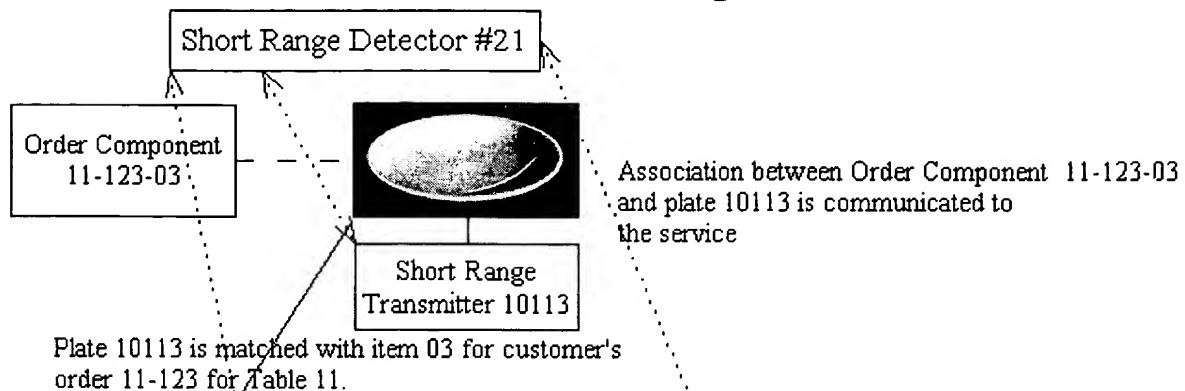
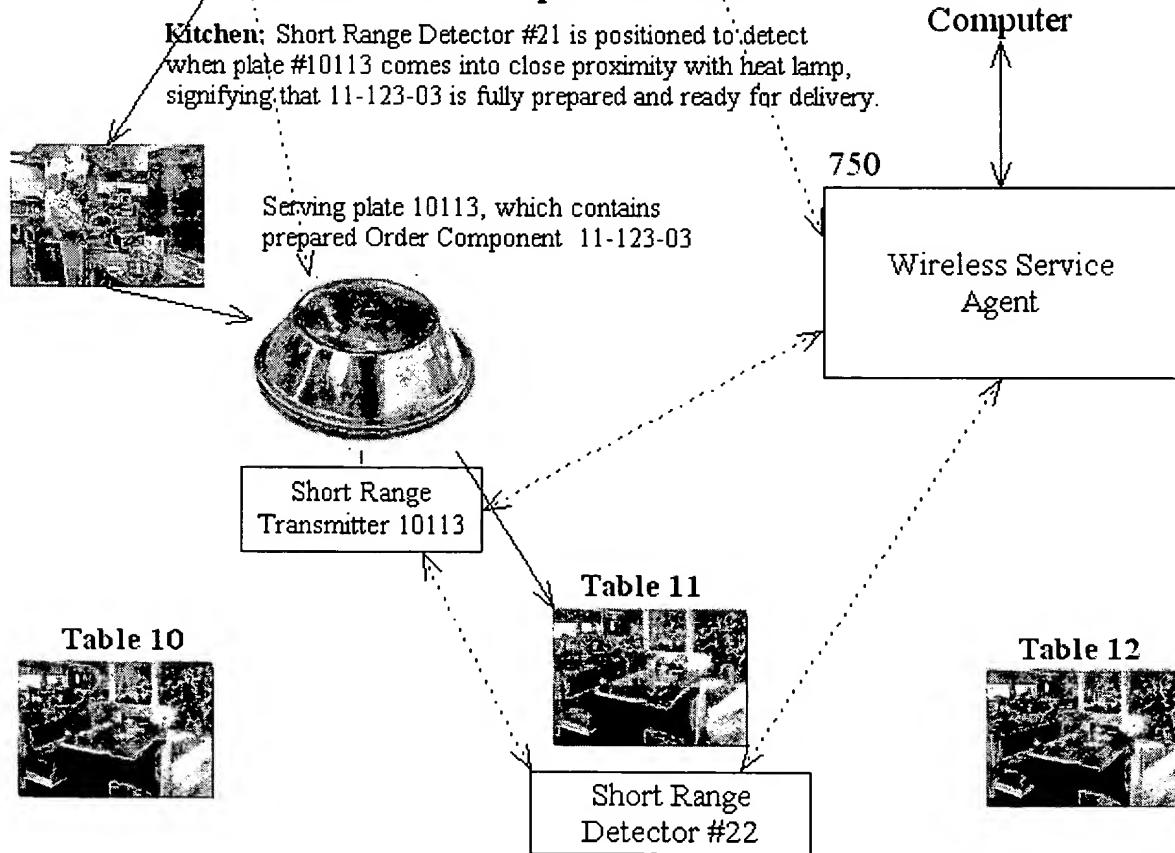
repeat until every aspect of each Component in the order is, "fixed"

↓  
Order is, "fixed"

Fig. 7

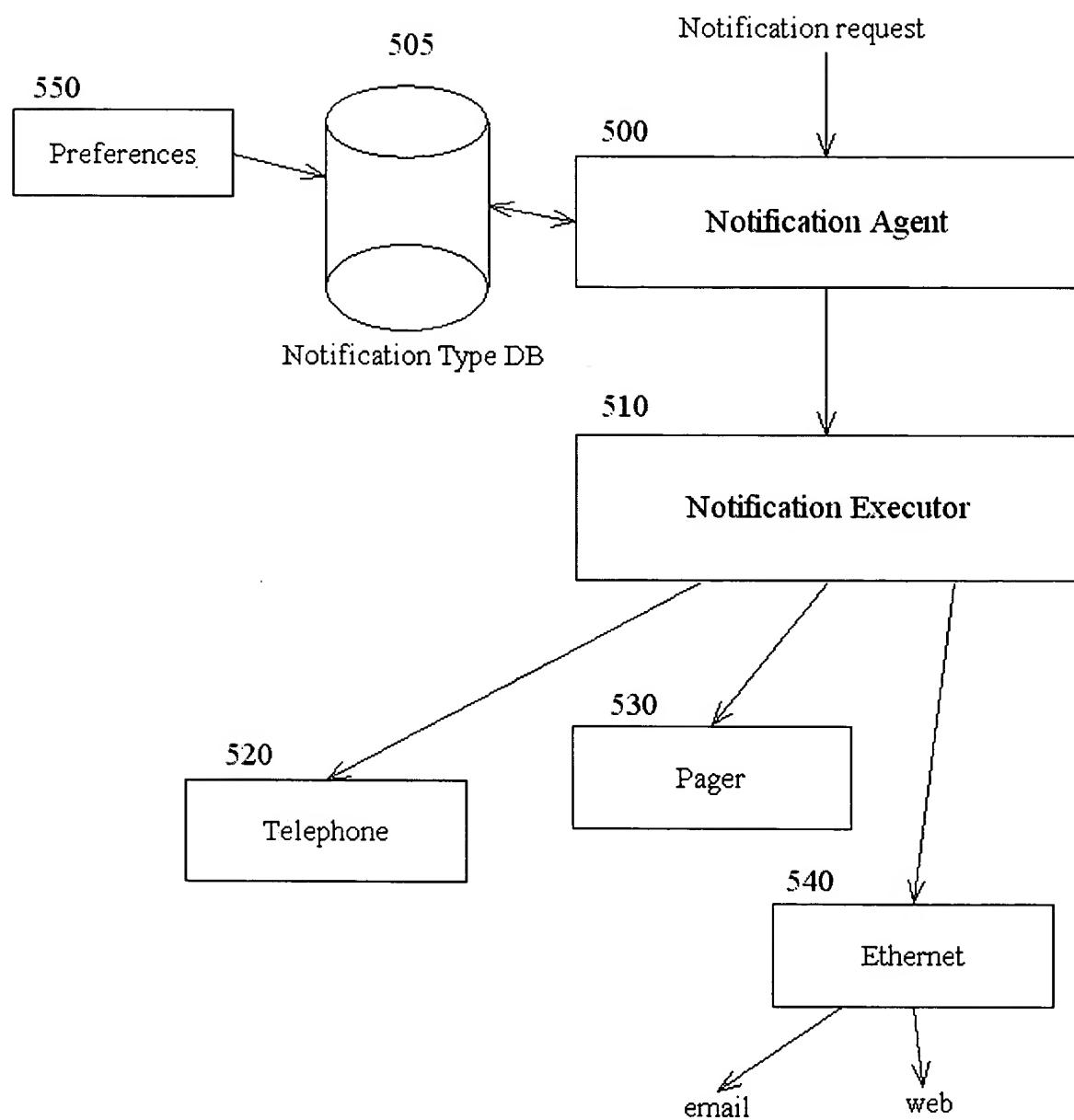
**Fig. 8****600 RF ID Order/Plate Matching Area****610 RF ID Order Preparation Area**

When RF ID #10112 and RF ID Detector #4 come into close proximity, a signal is transmitted to the RF Service.

**Fig. 9****700 Wireless Order/Plate Matching Area****710 Wireless Order Preparation Area**

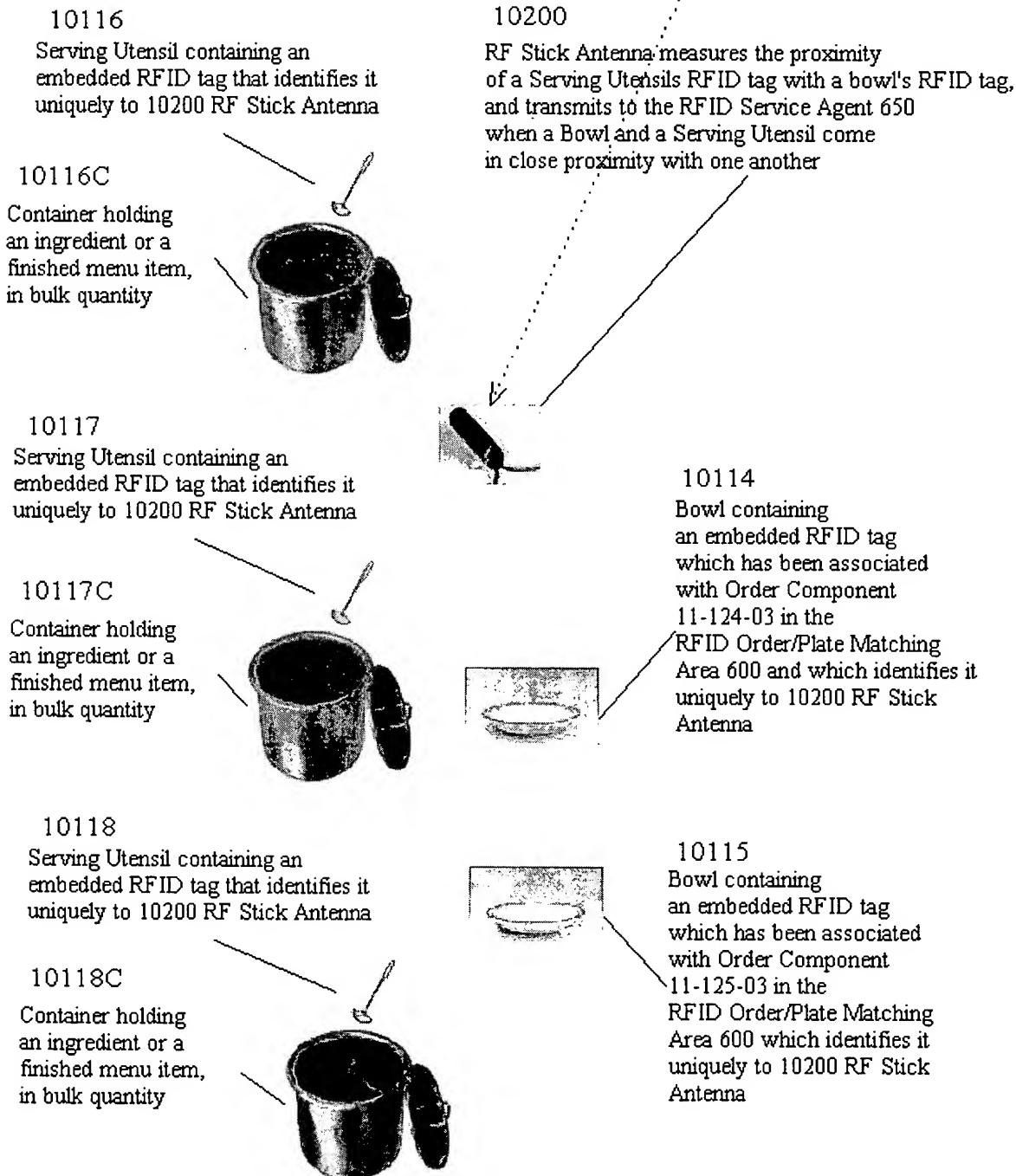
When Short Range Transmitter #10113 and Short Range Detector #22 come into close proximity, a signal is transmitted to the Wireless Service.

**Fig. 10**

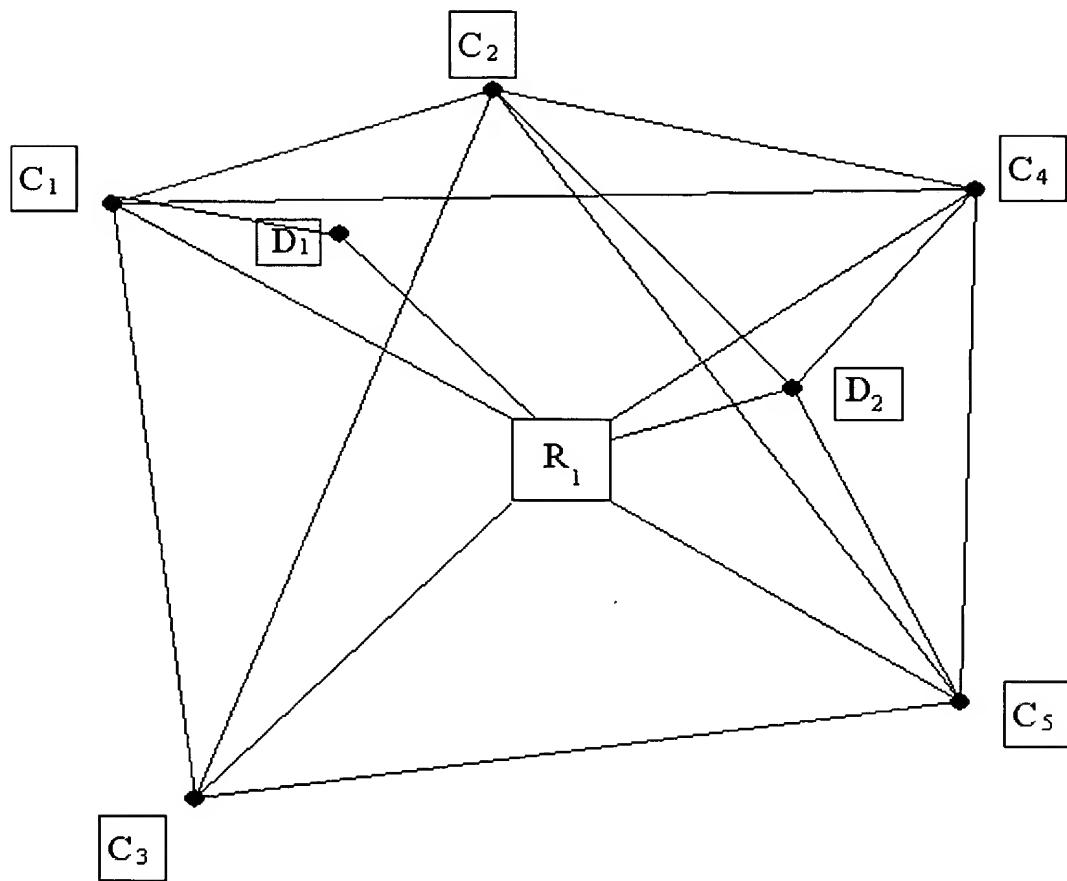


**Fig. 11**

**625**  
Container'd Food Serving Station Area



**Fig. 12**



R - Restaurant  
C - Customer  
D - Driver

Fig. 13 - SERVICE COSTS FOR DIFFERENT SERVICE LEVELS

